

tion for people at high risk for infection. These include health care workers in regular contact with blood or body fluids, especially surgeons, pathologists, oral surgeons, dentists and hygienists; operating room staff, intensive care unit, hemodialysis unit and emergency room staff, and hematology and blood bank technicians and phlebotomists. Other high-risk groups include sexually promiscuous populations (especially homosexual men), intravenous drug users, hemodialysis patients, residents and staff of mental institutions, prisoners and residents of viral hepatitis type B endemic regions. It is recommended that the HBV vaccine be given to household and intimate contacts of acutely infected persons. Recommended postexposure prophylaxis for known exposure to viral hepatitis type B has recently been modified such that the vaccine should be given along with an initial dose of hepatitis B immune globulin (HBIG) (at a separate site) to patients at risk; subsequent doses of the vaccine are given at one and six months, while the usual second dose of HBIG is no longer required. A booster of vaccine is recommended after five years. The vaccine can also be given to neonates whose mothers are HBsAg-positive; the risk to the fetus should be negligible. Pregnancy should not be considered a contraindication for vaccination for women at risk.

No serious side effects related to the vaccine have appeared in more than 200,000 recipients since testing began. Pain at the injection site and low-grade fever have been the only side effects noted in controlled trials of HBV vaccine. No cases of hepatitis B or non-A, non-B hepatitis have developed from vaccination. Similarly, there is no evidence that any cases of acquired immunodeficiency syndrome (AIDS) have been caused by vaccine administration, and, indeed, the incidence of AIDS is less in vaccine trial recipients (composed of patients at high risk for AIDS) than in matched controls who received placebo.

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Nonoperative Management of Fingertip Amputations

NONOPERATIVE MANAGEMENT of fingertip amputations has been described in the literature for more than ten years and has now become a generally accepted alternative to surgical repair. Nonoperative treatment—allowing a fingertip to heal by secondary intention—has achieved cosmetic and functional results that are consistently superior to split-thickness grafting techniques. Local flaps such as the Kutler V-Y flap, crossed-finger flaps and volar-advancement flaps offer early coverage of a finger, but the complication rate and long-term results are poorer than with nonoperative management. Superior results have occurred in prospective trials in which the wound was allowed to heal secondarily.

Nonoperative management provides the further advantage of preserving maximum finger length by removing the necessity in most cases of rongeuring back the exposed bone to provide skin coverage surgically. Nevertheless, some pa-

tients who need skin coverage to return to work may elect a surgical procedure, even if some further shortening of the finger is required.

The technique of nonoperative treatment involves debridement of nonvital soft tissue only, followed by an occlusive dressing (antibiotic, petrolatum gauze, gauze bandage) for 48 hours. Warm-tap-water soaking four times a day for 10 to 15 minutes is then instituted. The wound may be covered with two plastic bandages between soakings (one over the end of the finger, and the other around the first to keep it in place). The wound heals in two to three weeks in cases of pulp amputation and four to eight weeks in cases of more extensive injury involving exposed or protruding bone. In many cases, the patient can return to work in two to three days with a protective splint, if needed. Frequent bandage changes and soaking serve to remove any exudate and debris. The prophylactic use of antibiotics is generally not necessary except in grossly contaminated wounds. Joint stiffness can be prevented by active range of motion of all finger joints during soaking.

Healing occurs as soft tissue migrates over any exposed bone and is covered by the advancing epithelial margin. The result is a fingertip with normal epithelium except for a small linear scar. Amputation neuromas rarely, if ever, occur. Sensation is generally excellent, as is cosmetic appearance. Most complications are related to nail deformity, which most often occurs when a significant portion of the bone under the nail bed has been lost. Such deformities may be eliminated by removing the nail matrix entirely (either at the time of injury or at a later date) if a patient so desires.

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The Use of Activated Charcoal in Cases of Poisoning and Drug Overdose

ACTIVATED CHARCOAL is widely used in treating cases of poisoning and drug overdose. A finely powdered product of the pyrolysis of wood pulp, the charcoal is "activated" by exposure to oxidizing gas at high temperatures to make a network of tiny pores. The total surface area of these pores is about 1,000 m² per gram of charcoal. Activated charcoal binds a variety of drugs and chemicals and thus may prevent their absorption from the gastrointestinal tract. The effectiveness of charcoal in preventing poisoning was shown by a French pharmacist in 1831 when he swallowed a lethal dose of strychnine along with 15 grams of charcoal without ill effect.

Charcoal (50 to 100 grams) is routinely given to poisoning victims after emptying the stomach with ipecac-induced emesis or gastric lavage. Unfortunately, persistent emesis after ipecac is given often delays the administration of charcoal for as long as two to three hours. Because charcoal